

# Comparisons of Job Characteristics

**Focus Occupation:** Environmental Engineering Technicians (17-3025)

**Associated Occupation:** Hydrologists (19-2043)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 71

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mathematics	9.2	17.7	11.2	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	17.4	15.8	<	Expanded education and/or training may be required
Geography	3.9	16.7	6.2	<<	Extensive education and/or training may be required
Physics	4.3	15.7	10.2	<<	Extensive education and/or training may be required
Chemistry	4.8	15.6	7.0	<<	Extensive education and/or training may be required
Biology	3.7	13.6	6.8	<<	Extensive education and/or training may be required
Design	5.2	12.6	11.1	<	Expanded education and/or training may be required
Law and Government	5.9	11.3	9.5	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Critical Thinking	10.8	14.5	14.5	0	Current skill level may be sufficient
Science	4.5	13.0	8.3	<<	Extensive development of skills in this area may be required

Mathematics	6.2	12.8	11.3	<	A higher skill level may be required
Programming	2.2	6.5	5.0	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Abilities

Similarity of Focus Occupation to Associated Occupation: 91

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Inductive Reasoning	10.2	14.6	13.6	0	Current ability level may be sufficient
Written Comprehension	11.0	14.6	16.6	>	Current ability level is likely sufficient
Written Expression	9.8	14.1	12.0	<	Some improvement in abilities may be required
Problem Sensitivity	11.1	13.9	15.9	>	Current ability level is likely sufficient
Mathematical Reasoning	6.3	13.8	10.6	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	13.4	14.5	0	Current ability level may be sufficient
Flexibility of Closure	7.8	12.0	7.3	<<	Extensive improvement in abilities may be required
Originality	7.6	11.5	8.2	<<	Extensive improvement in abilities may be required
Fluency of Ideas	7.6	11.3	7.3	<<	Extensive improvement in abilities may be required
Category Flexibility	9.0	11.2	11.8	0	Current ability level may be sufficient
Number Facility	6.3	10.8	10.6	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 71

Focus Occupation: Environmental Engineering Technicians (17-3025)

Associated Occupation: Hydrologists (19-2043)

Work Activities	Exclusivity of Activity
Analyze scientific research data or investigative findings	27
Communicate technical information	4
Develop plans for programs or projects	31
Explain complex mathematical information	30
Maintain records, reports, or files	5
Prepare technical reports or related documentation	22
Record test results, test procedures, or inspection data	48
Use building or land use regulations	65

Use chemical testing or analysis procedures	54
Use scientific research methodology	21

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 78

**Focus Occupation: Environmental Engineering Technicians (17-3025)**

**Associated Occupation: Hydrologists (19-2043)**

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Business function specific software	1
Cameras	2
Chemical evaluation instruments and supplies	10
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Development software	4
Electrochemical measuring instruments and accessories	9
General laboratory glassware and plasticware and supplies	13
Hydrological instruments	31
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory heating and drying equipment	13
Laboratory ovens and accessories	15
Laboratory pumps and tubing	23
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Liquid and solid and elemental analyzers	19
Network applications software	1
Pipettes and liquid handling equipment and supplies	16
Pumps	9
Respiratory protection	6
Sampling equipment	12
Soil measuring equipment	20
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Water treatment and supply equipment	21
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.